

**Appl. No.** : **10/800,391**  
**Filed** : **March 12, 2004**

### **REMARKS/ARGUMENTS**

Claim 1 has been amended to clarify some aspects of the collar, support for which can be found at least on pages 9 and 10 of the specification. No new matter has been added. In the outstanding Office Action, the Examiner has rejected Claims 1-14. Reconsideration and allowance of all Claims 1-14 in light of the present remarks is respectfully requested.

#### Rejections Under 35 U.S.C. § 103(a)

The Examiner has rejected Claims 1-14 under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,688,803 to Marie Van Giezen, et al. in view of U.S. Patent No. 4,321,068 to Cottrell, et al.

The Examiner states that “it would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the periphery of each receiving opening of Maria Van Giezen, et al. to protrude inwards into the tube to define a collar surrounding the second element so as to provide a frictional fit of the two elements in order to increase the area around the openings engaged by the second element hence providing a more structurally sound grid structure.”

The problem discovered by the inventors was not a generally weak structure as in Cottrell, but instead was an inability of the previous pallet container grid structure to withstand mechanical shocks during, for example, drop tests. Indeed, the inventor discovered the source of this problem for pallet containers. The inventor determined that the “knife-edges” created by drilling holes in the first elongate elements made the second elongate elements more likely to break when subjected to mechanical forces between the first and second elements. This occurred because the second elongate elements when pushed against the first elongate elements would be bent at sharp angles or punctured by the “knife-edges.” The inventor then took the further inventive step of creating collars in the first elongate elements to solve that “knife-edge” problem. See specification Pages 9-10.

To solve the “knife-edge” problem, the collar of Claim 1 is specifically configured at least to reduce damage of both the first and second elements, to support the second element, to

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provide a pivot surface about which the second element can bend such that the second element is more likely to bend than to break, and to spread the dynamic forces between the first and second elements to prevent a knife edge contact between the first and second elements.

It has been established that an inventor can meet the nonobviousness requirement of § 103 by discovering the source of a problem. "A patentable invention, within the ambit of 35 U.S.C. § 103, may result even if the inventor has, in effect, merely combined features, old in the art, for their known purpose, without producing anything beyond the results inherent in their use.... It should not be necessary for this court to point out that a patentable invention may lie in the discovery of the source of a problem even though the remedy may be obvious once the source of the problem is identified." *In re Spinnoble*, 56 C.C.P.A. 823, 405 F.2d 578. The present invention is not obvious over U.S. Patent No. 6,688,803 to Marie Van Giezen, et al. in view of U.S. Patent No. 4,321,068 to Cottrell, et al for at least the reason that the applicant discovered the non-obvious source of the problem in order to invent a solution thereto.

Furthermore, a result which is greater than that contemplated by the prior art is sufficient to establish nonobviousness. *In re Corkill*, 711 F.2d 1496, 226 USPQ 1005 (Fed. Cir. 1985). ("A greater than expected result is an evidentiary factor pertinent to the legal conclusion of obviousness ... of the claims at issue.")

The Cottrell patent teaches using collars to avoid damage due to welding and to reduce costs. However, the prior art does not contemplate the beneficial consequence of the increase in reliability to be made by avoiding the "knife-edge" problem. A person skilled in the art and familiar with the Van Giezen and Cottrell patents would be surprised by the magnitude of the increase in reliability when the collars of Cottrell are combined with the structure of Van Giezen. Without hindsight, such a person would have had no reasonable expectation of success in creating a grid that would survive the drop tests and use conditions described in the specification. Because the benefits of Cottrell combined with Van Giezen are unexpected, there is no suggestion or motivation to use the teachings of Cottrell to solve the problems of Van Giezen and Claim 1 is nonobvious.

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Because they incorporate all of the limitations of the claim from which they depend, Claims 2-14 also define patentable subject matter for at least the same reasons as set forth above with respect to the independent claim from which they each depend.

CONCLUSION


Applicant has endeavored to address all of the Examiner's concerns as expressed in the outstanding Office Action. Accordingly, amendments to the claims for patentability purposes pursuant to statutory section 103, the reasons therefore, and arguments in support of the patentability of the pending claim set are presented above. In light of these amendments and remarks, reconsideration and withdrawal of the outstanding rejections is respectfully requested.

Please charge any additional fees, including any fees for additional extension of time, or credit overpayment to Deposit Account No. 11-1410.

Respectfully submitted,

KNOBBE, MARTENS, OLSON & BEAR, LLP

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By:   
Thomas R. Arno  
Registration No. 40,490  
Attorney of Record  
Customer No. 20,995  
(619) 235-8550

2970991  
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